

Remarks/Arguments

Response to Arguments

Applicant has amended the claims to further clarify that the adjustments to the video encoding of the video processing means are made by the control means based upon an indicator of a characteristic of the analog RF signal.

35 U.S.C. §103

Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Oya (U.S. Patent No. 6,421,098 B1), in view of Perlman et al. (U.S. Publication No. 2007/0147406 A1; hereinafter referred to as “Perlman”), and further in view of Krishnamurthy et al. (U.S. Patent No. 5,508,748; hereinafter referred to as “Krishnamurthy”).

It is respectfully asserted that none of Oya, Perlman, or Krishnamurthy, alone or in combination, discloses a video apparatus comprising:

“control means for adjusting the encoding bit-rate used by the video processing means for the encoding of the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,”

as described in currently amended claim 16.

Oya teaches a system where “optimal RF AGC points are individually set for a terrestrial digital television signal and a CATV digital signal. A switch is changed according to whether an input signal is a terrestrial digital television signal or a CATV digital signal. If the terrestrial digital television signal is input, the voltage for setting the RF AGC point is set to a reference voltage V1 output from a first reference power supply source. If the CATV digital signal is input, the voltage for setting the RF AGC point is set to a reference voltage V2 output from a second reference power supply source. A

comparator then outputs an RF AGC signal according to a difference between an IF AGC signal and the reference voltage.” (Oya Abstract)

The system of Oya receives a digital television signal (either terrestrial digital television or CATV digital), not an analog signal. Furthermore, as admitted in the Office Action, Oya “does not specifically disclose that the processing means receives the video signal and outputs a compression encoded stream and the newly added limitation wherein the processing means includes a compression encoder having an adjustable encoding bit-rate and wherein the control means includes means for adjusting the encoding bit-rate based on the indicator.” (Office Action, page 6) Therefore, Oya fails to disclose a video apparatus comprising “control means for adjusting the encoding bit-rate used by the video processing means for the encoding of the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means” as described in currently amended claim 16.

Perlman teaches a method “including: receiving a broadcast signal containing a set of multiplexed multimedia channels; storing said multiplexed multimedia channels in a temporary storage buffer on a mass storage device; determining a point in said temporary storage buffer to begin demultiplexing and decoding a first channel responsive to a user request to view a particular program on said first channel in its entirety, said point indicating the start of said program on said first channel; and demultiplexing and decoding said first channel of said set of multiplexed multimedia channels from said point within said temporary storage buffer.” (Perlman Abstract)

Applicant again respectfully disagrees with the assertion that the use of different types of frames represents an adjustable bit-rate, as well as the assertion that differences in the frames or the IDs of the frames represent an indicator of a characteristic of an RF signal. (Office Action, page 3) Perlman discloses an encoder producing I-frames, B-frames, and P-frames, wherein I-frames generally require more bits for their encoding than B- or P-frames. However, the term “adjustable encoding bit-rate” in the present claims refers not to differences in the bit-size of separate frames, but instead to the overall bit-rate of the compressed video stream, which can be adjusted. Adjustment of the encoding bit-

rate is not taught by Perlman. Furthermore, the variation in the number of bits required to encode frames that is mentioned by Perlman is not due to an adjustment, but instead due to the differing content of the frames. For instance, if there is significant movement represented in the video signal, the required encoded frame size may be larger than if there is little or no movement. In contrast, the present invention takes advantage of the finding that it can be advantageous to adjust the overall bit-rate in response to properties other than the degree of movement or change, specifically, in response to characteristics of the incoming RF signal.

Furthermore, as admitted in the Office Action, the “combination of Oya and Perlman above does not specifically disclose the newly added limitation wherein the processing means includes a compression encoder having an adjustable encoding bit-rate and wherein the control means includes means for adjusting the encoding bit-rate based on the indicator.” (Office Action, page 6) Therefore, Perlman, like Oya, fails to disclose a video apparatus comprising “control means for adjusting the encoding bit-rate used by the video processing means for the encoding of the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means” as described in currently amended claim 16.

Krishnamurthy teaches a “system for determining the data bits represented by the received symbols of one or more data constellations includes converting the received symbols into multi-bit values (preferably in two's complement form), selecting a number of the most significant bits of each of the multi-bit values and inverting the most significant bit thereof to derive the data bits represented by the respective symbol.” (Krishnamurthy Abstract)

Krishnamurthy does not describe, nor does the Office Action assert that it describes, a compression encoder with a bit rate adjusted based upon an indicator of a characteristic of the analog RF signal. In fact, the VSB encoding processes of Krishnamurthy, particularly the forward error correction, would expand the data, not compress it, and the corresponding decode would recover the data at its original size. Therefore, Krishnamurthy, like Perlman and Oya, fails to disclose a video apparatus

comprising “control means for adjusting the encoding bit-rate used by the video processing means for the encoding of the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means” as described in currently amended claim 16.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Oya, Perlman, or Krishnamurthy, alone or in combination, that makes the present invention as claimed in currently amended claim 16 unpatentable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claims 1, 3-4, and 6-10, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Oya, in view of Perlman, and further in view of Van Der Wijst et al. (U.S. Patent No. 7,006,150 B2; hereinafter referred to as “Van Der Wijst”), or Ruitenburg (U.S. Patent No. 6,252,633 B1).

It is respectfully asserted that none of Oya, Perlman, Van Der Wijst, or Ruitenburg, alone or in combination, discloses a video apparatus:

“control means for adjusting the video processing means based on the indicator and for adjusting the adjustable filter applied by the video processing means to the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,”

as described in currently amended claim 1.

As described above, the system of Oya receives a digital television signal, not an analog signal. Furthermore, as admitted in the Office Action, “Oya does not specifically disclose the newly added limitation that the processing means receives the video signal and outputs a compression encoded stream and the newly added limitation wherein the

processing means for receiving the analog video signal and outputting a compression encoded stream based on the video signal includes an adjustable filter and wherein the control means includes means for adjusting the adjustable filter based on the indicator.” (Office Action, pages 7-8) Therefore, Oya fails to disclose a video apparatus comprising “control means for adjusting the video processing means based on the indicator and for adjusting the adjustable filter applied by the video processing means to the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,” as described in currently amended claim 1.

Likewise, Perlman, as described above, does not disclose the use of an adjustable filter in the encoding and compression of an analog signal, or more specifically, the adjustment of such a filter based upon an indicator of a characteristic of the analog signal. Furthermore, as admitted in the Office Action, the “combination of Oya and Perlman above does not specifically disclose the newly added limitation wherein the processing means includes a compression encoder having an adjustable encoding bit-rate and wherein the control means includes means for adjusting the encoding bit-rate based on the indicator.” (Office Action, page 7) Therefore, Perlman, like Oya, fails to disclose a video apparatus comprising “control means for adjusting the video processing means based on the indicator and for adjusting the adjustable filter applied by the video processing means to the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,” as described in currently amended claim 1.

Van Der Wijst teaches an “interface module for receiving television signals or radio signals has several inputs and outputs for receiving and distributing picture and sound signals as well as control signals and at least one input for antenna signals. The interface module includes at least one tuner and a chip with a microprocessor including memory and data capture capability, and is capable of picture, color and sound decoding and signal processing units. The chip and the tuner are installed in a common casing.” (Van Der Wijst Abstract)

The Office Action relies upon Van Der Wijst to teach “that the SAW filter is adjusted to improve the performance of the signal processing.” (Office Action, page 8) Van Der Wijst shows an adjustable filter wherein the control means includes means for adjusting the adjustable filter based on an indicator. However, Van Der Wijst does not disclose, nor does the Office Action assert that it discloses, outputting a compression encoded stream based on a received analog video signal, using a filter adjusted based on an indicator of a characteristic of the analog RF signal. In fact, the SAW filter described in Van Der Wijst is unrelated to any compression or encoding process. Therefore, Van Der Wijst, like Perlman and Oya, fails to disclose a video apparatus comprising “control means for adjusting the video processing means based on the indicator and for adjusting the adjustable filter applied by the video processing means to the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,” as described in currently amended claim 1.

Ruitenburch teaches a way to “simplify the circuitry in a television signal receiver having a radio-frequency tuner (1) and at least two subsequent surface-acoustic wave filters (2, 3), in which the radio-frequency tuner (1) filters a radio frequency television signal applied to its input and converts it to an intermediate-frequency television signal which is coupled to the surface-acoustic wave filter (2, 3), the radio-frequency tuner (1) has at least two outputs (6, 7) which supply the IF television signal converted to the intermediate frequency. Each output (6, 7) is associated with a switch (8, 9) for switching the associated output (6, 7) to a fixed reference potential. A first input (10; 12) of the two surface-acoustic wave filters (2, 3) is coupled to a first output (6) of the radio-frequency tuner (1), and a second input (11; 13) of the two surface-acoustic wave filters (2, 3) is coupled to a second output (7) of the radio-frequency tuner (1). For switching the filter characteristic of the television signal receiver, alternately one of the outputs (6; 7) of the radio-frequency tuner (1) and the inputs (10, 12; 11, 13) coupled thereto of the surface-acoustic wave filters (2, 3) can be coupled to the reference potential by the associated switch (8; 9).” (Ruitenburch Abstract)

The Office Action relies upon Ruitenburch, along with Van Der Wijst, to teach “that the SAW filter is adjusted to improve the performance of the signal processing.” (Office

Action, page 6) Ruitenburg does not disclose, nor does the Office Action assert that it discloses, outputting a compression encoded stream based on a received analog video signal, using a filter adjusted based on an indicator of a characteristic of the analog RF signal. The SAW filter described in Ruitenburg is also unrelated to any compression or encoding process. Therefore, Ruitenburg, like Van Der Wijst, Perlman, and Oya, fails to disclose a video apparatus comprising “control means for adjusting the video processing means based on the indicator and for adjusting the adjustable filter applied by the video processing means to the analog video signal, said adjustment being based on the indicator of a characteristic of the analog RF signal provided by the video processing means,” as described in currently amended claim 1.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Oya, Perlman, Van Der Wijst, or Ruitenburg, alone or in combination, that makes the present invention as claimed in currently amended claim 1 unpatentable. Since dependent claims 3-4 and 6-10 are dependent from allowable independent claim 1, it is submitted that they too are allowable for at least the same reasons that claim 1 is allowable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claims 5 and 11-15, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Oya, in view of Perlman, further in view of Van Der Wijst, or Ruitenburg, as applied to claims 1, 3-4 and 6-10 above, and further in view of Krishnamurthy.

Since dependent claims 5 and 11-15 are dependent from independent claim 1, which is allowable for the reasons described above, it is submitted that they too are allowable for at least the same reasons that claim 1 is allowable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's representative at (609) 734-6804, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,
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November 29, 2010